UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF COMMERCIAL FISHERIES

CALIFORNIA FISHERY MARKET NEWS MONTHLY SUMMARY

SEPTEMBER 1967

PART II–Fishing Information*

Sea-surface temperatures, fishing and research information of interest to the West Coast tuna-fishing industry and marine scientists

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U. S. Department of the Interior
Bureau of Commercial Fisheries
Fishery-Oceanography Center
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PACIFIC NORTHWEST ALBACORE SEASON BEST SINCE 1944

Fishing conditions ranging from excellent to phenomenal set the pace for the albacore fleet in Oregon-Washington waters during September. Consequently, landings have jumped upward again, making September 1967 the second best since albacore fishing began in the Pacific Northwest in 1935-36. Last month proved to be the best August on record (12,967,302 pounds) since the all-time high landings total of 14,533,274 pounds was registered in 1944. Thus, the last 2-month period has verified earlier indications that oceanographic conditions would contribute to another record albacore season in the northern waters. All available indications now point to 1967 as being the best albacore fishing season in this area since 1944, when 34,109,555 pounds were landed in Washington and Oregon ports.

California waters failed to produce significant commercial quantities of albacore. At the end of September, domestic landings came to only 9,610,000 pounds reflecting the poorest fishing season since 1944 when 7,663,788 pounds were landed. Fishing in southern California waters was almost exclusively restricted to sportfishing party boats. Some commercial activity prevailed from Point Conception to the Farallon Islands, and the only major center of action appeared off Eureka during the first week of the month.

Mid-season oceanographic events appeared to influence the course of the albacore fishery strongly this year. The warm sea surface temperature anomaly which developed rapidly north of 35° N. in the last half of July (see July 1967 issue of this publication) has persisted with little change since then. The 6-8° F. thermal excess stored in the upper mixed layer of the sea off Oregon and Washington had shown only a slight downward trend up to the last week of September. Normally, by this time the oceanic climatological cycle begins its trend downward toward cooler temperatures as fall weather sets in. This year, however, the Pacific Northwest region has experienced an absence of the usual northwest winds, and coastal upwelling has been sharply reduced. A weak ridge of high pressure has contributed only light, variable and occasionally easterly winds during most of September, except for a squally storm front which passed shoreward near mid-month. Sea conditions were generally good to excellent, and fishing activities were restricted only briefly.

The best fishing found anywhere on the Pacific coast appeared to be centered off northern Oregon and southern Washington. Spectacular fishing commenced about September 12 or 13 off the mouth of the Columbia River and gradually shifted northward and offshore to about 100 miles west of Destruction Island by the 23rd. One baitboat, the Olympia, logged a catch of 119 tons on September 12 and 44 tons on the following day, establishing a new record for a single day's fishing. Many other baitboats also recorded very good catches in this same region.

Reports of frequent sightings of baitfish schools in the best fishing areas appeared to confirm earlier observations by BCF R/V John N. Cobb, which had reported finding saury abundant near shore from the 42nd parallel north to Destruction Island. Cobb reported the greatest abundance of saury 30 miles offshore from Destruction Island about 2 weeks prior to the excellent catches taken in this area. It appears that this tremendous aggregation of saury, one of the mainstays of the albacore's open-sea diet, may have served to concentrate and to hold the fish in record-breaking numbers.

At present, Oregon port facilities continue to receive heavy landings. Unloading delays up to 6-8 days were experienced by albacore fishermen in the latter part of the month as the opening of the Columbia River salmon fishing season contributed to additional congestion at already overtaxed dock facilities. Port facilities appeared to be clearing slightly at month-end as fishing slackened abruptly when an intense low pressure system developed rapidly in the southern Gulf of Alaska area.

Oregon may also establish another landings record in October if the present stormy conditions subside quickly. Albacore are expected to remain in the excellent feeding region off Oregon and Washington as long as sea surface temperature conditions remain optimal (above 60° F.). The excess heat stored in the upper mixed layer last July could extend the oceanographic summer season by as much as 2-3 weeks longer than usual. However, if stormy weather prevails for very long, the resultant turbulent mixing could well accelerate the normal fall season loss of heat to the atmosphere and the fishery could terminate before the end of October as the isotherms begin to be displaced southward. Albacore catches presently carried aboard vessels are expected to contribute approximately 3,000,000 pounds to Oregon landings, and a brief return of good weather and fishing could swell the total to 5,000,000 pounds, thus ranking October 1967 as either the first or second best on record since the inception of the Pacific Northwest fishery in 1935-36.

California landings for October are also expected to jump slightly, reflecting catches presently carried aboard boats at sea. These boats are expected to return to home ports in southern and central California with catches actually originating from northern waters in September, and could add approximately 2,000,000 pounds to the final season total. Nevertheless, total California landings will still place 1967 as the poorest albacore year since 1944.

Total Pacific coast landings are expected to fall between 35,000,000 and 37,000,000 pounds, or approximately 17 percent short of the 1945-65 average of 42,000,000 pounds.

Glenn A. Flittner
October 4, 1967

NEW FISHERY-OCEANOGRAPHY CENTER DIRECTOR NAMED

Regional Director Gerald V. Howard announced the selection of Dr. Alan R. Longhurst as successor to Dr. Elbert H. Ahlstrom as the Director of the Fishery-Oceanography Center at La Jolla on September 25. Dr. Longhurst has been associated with the Scripps Institution of Oceanography of the University of California since 1963 and has recently served as Coordinator for EASTROPAC, the cooperative multi-agency oceanographic investigation of the eastern tropical Pacific. The new director is a recognized authority in fisheries and oceanography, having written more than 40 scientific publications. He was born in Plymouth, England, and received his doctorate from Bedford College, University of London, in 1962. He has conducted fishery research programs in West Africa, for the governments of Nigeria and Sierra Leone, and also in New Zealand before coming to Scripps Institution of Oceanography.

Dr. Ahlstrom joined the former Bureau of Fisheries in 1939, became Director of the Bureau's California Current Resources Laboratory in 1959 and Director of the Fishery-Oceanography Center in 1964. Dr. Ahlstrom is internationally known as an expert on larval fish and plankton dynamics. He has pioneered in the evaluation of fishery resources through quantitative assessment of the distribution and abundance of egg and larval stages of marine fishes. As a newly-appointed Senior Scientist of the Bureau, he plans to continue his studies on larval fishes and to complete a comprehensive monograph describing over 300 species of larval fishes collected in the California Current area over the past years.

QUESTIONNAIRE TO BE DISTRIBUTED NEXT MONTH

October 31 will signal the end of the second year of full-scale operation of an expanded program of activity designed to provide current environmental and fishery information to the Pacific coast albacore and bluefin tuna fishing industry. In the past two seasons, we have attempted to reorient our fishery forecasting activities and services, and to establish a regular radio broadcast schedule whereby all pertinent information could be disseminated to fishermen and processors regularly.

In the course of each season we have recognized several major deficiencies and problem areas, and have begun dealing with each as our operational experience and funding and staffing limitations permit. Now that the fishing season is nearly over for 1967, we wish to take stock of our progress, and to evaluate our activities through the medium of the questionnaire which you will be requested to complete and return to us next month. The questionnaire and self-addressed return form will be mailed about November 10 so that all interested persons may have the opportunity to reply soon after the season closes (and while experiences and viewpoints are still fresh in mind). Your cooperation in providing the desired information will be appreciated.

SEA SURFACE TEMPERATURE CHARTS, EASTERN PACIFIC OCEAN SEPTEMBER 1967

Acknowledgements

The following organizations and stations contributed data for the September 1967 charts:

U. S. Bureau of Commercial Fisheries Exploratory Fishing and Gear Research Base, Seattle, Washington

U. S. Bureau of Commercial Fisheries Biological Laboratories La Jolla, California; Honolulu, Hawaii; and Seattle, Washington

U. S. Bureau of Commercial Fisheries Biological Laboratory, Miami, Florida, Undaunted

U. S. Coast Guard Air Station, San Diego, California

U. S. Coast Guard, Rockaway

U. S. Naval Communication Station Balboa, Fort Amador, Canal Zone

U. S. Naval Weather Service, Fleet Numerical Weather Facility, Monterey, California

Environmental Science Services Administration

U. S. Weather Bureau, San Diego, California

U. S. Weather Bureau Forecast Center, Los Angeles, California

Hopkins Marine Station, Pacific Grove, California by J. P. Balesteri

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Inter-American Tropical Tuna Commission, La Jolla and Terminal Island, California

Kelco Company, San Diego, California
Oregon State University, Department of Oceanography, Corvallis, Oregon, R/V Yaquina
Pacific Oceanographic Group, Nanaimo, British Columbia, by H. J. Hollister from observations by Lily Collins at Quatsino Lightstation; Wayne G. McMann at Cape St. James Light; O. A. Edwards at Amphitrite Point Light; G. C. Wilkes at Langara Island Light
Scripps Institution of Oceanography, La Jolla, California by Margaret Robinson and Hans Klein
W. R. Grace and Company, New York by Dr. I. William Lane
Ships Princess, Martinac, Californian

Charts

Figure 1.--Mean sea surface temperatures (°F) derived from approximately 9000 observations. Squares show temperatures at weather ship stations. Numerals on shore are temperatures at coastal and lightship stations.

Figure 2.--Deviation of sea surface temperatures (°F) from long term charts of H. O. 225. Hatched areas are colder in 1967.

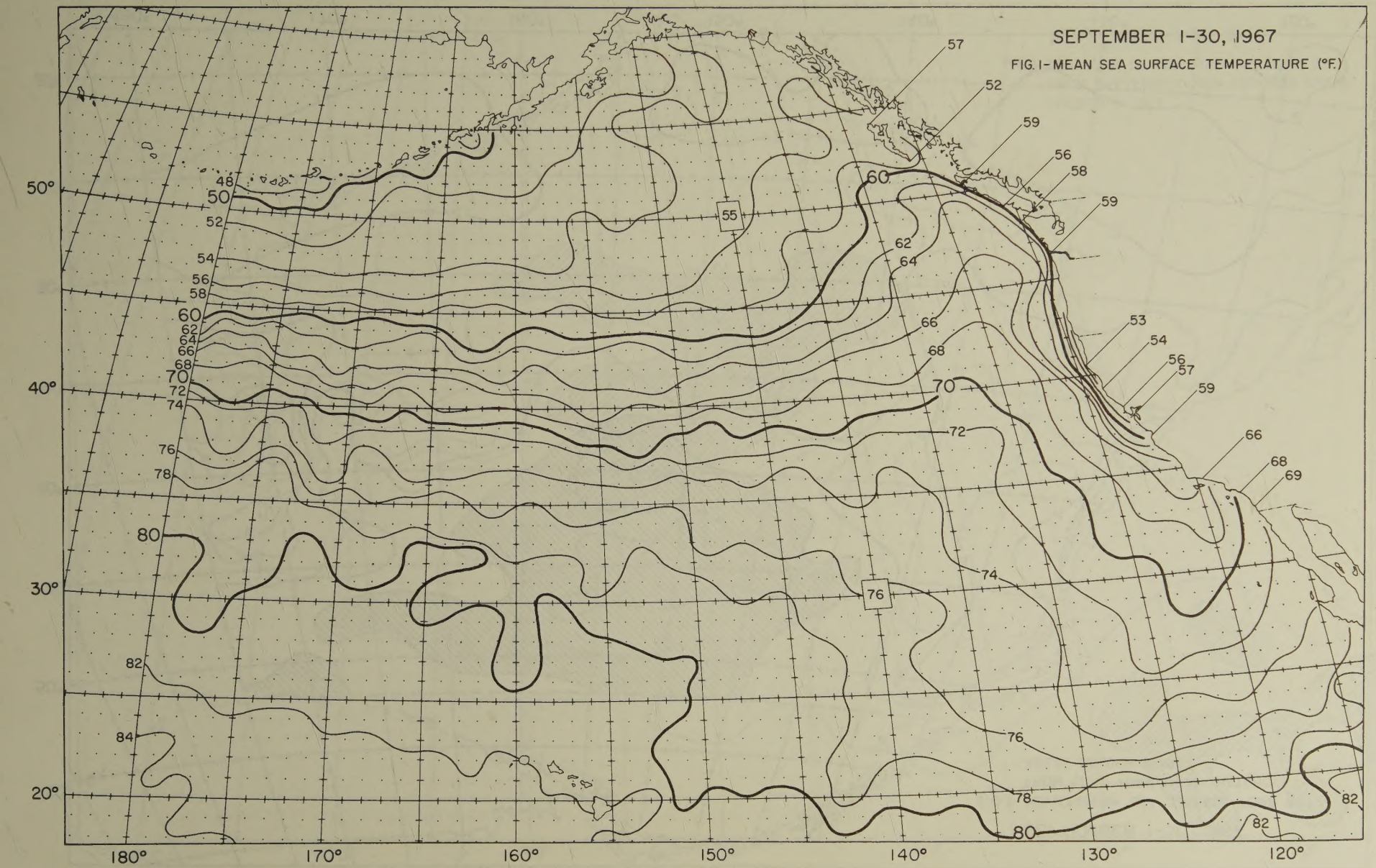
Figure 3.--Deviation of sea surface temperatures (°F) from those of September 1966. Hatched areas are colder in 1967.

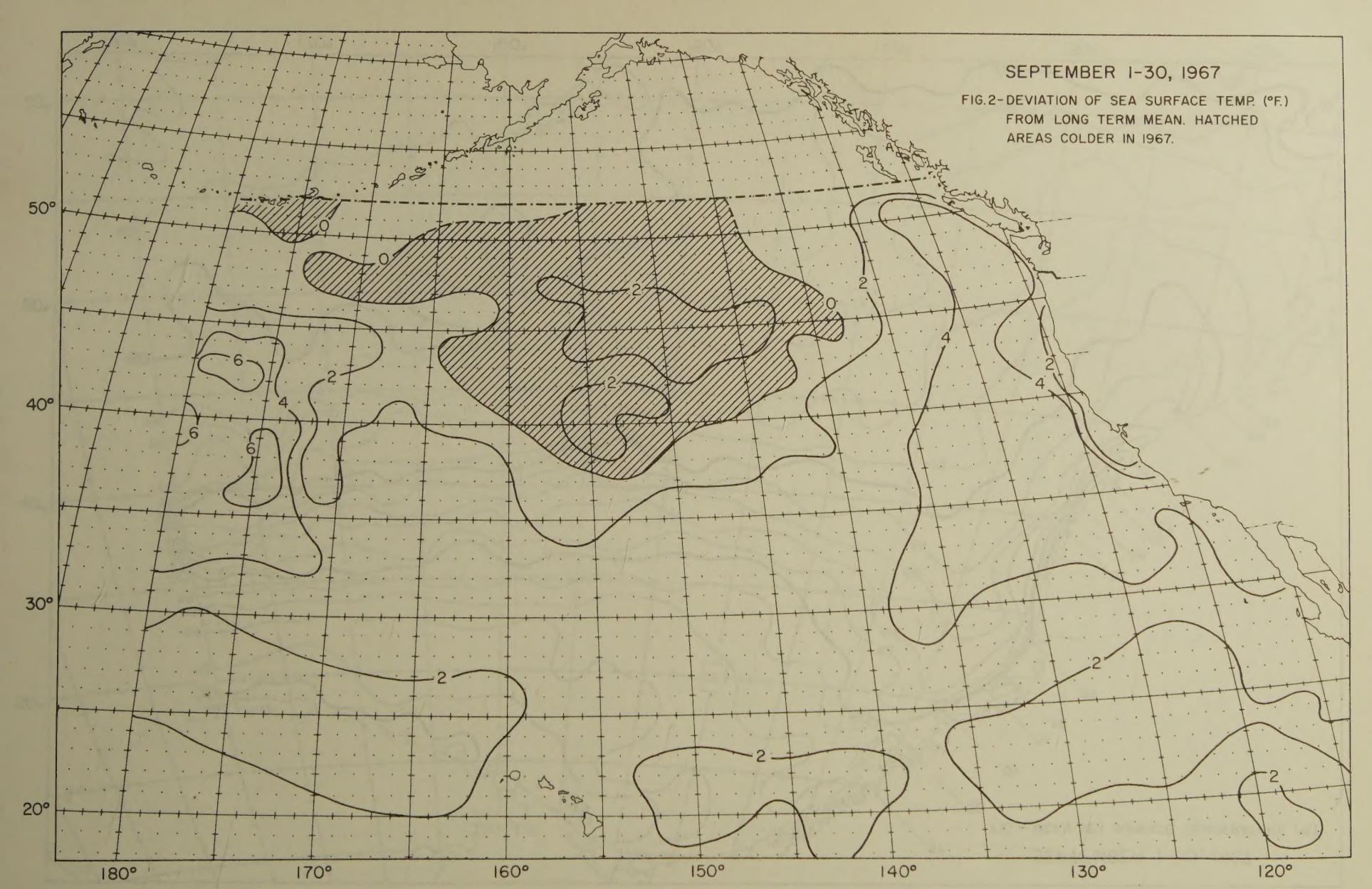
Figure 4.--Sea surface temperatures (°F) by 1-degree squares, approximately 3000 observations. Line under temperatures indicates average of two or more observations. Numerals on shore are temperatures at coastal stations.

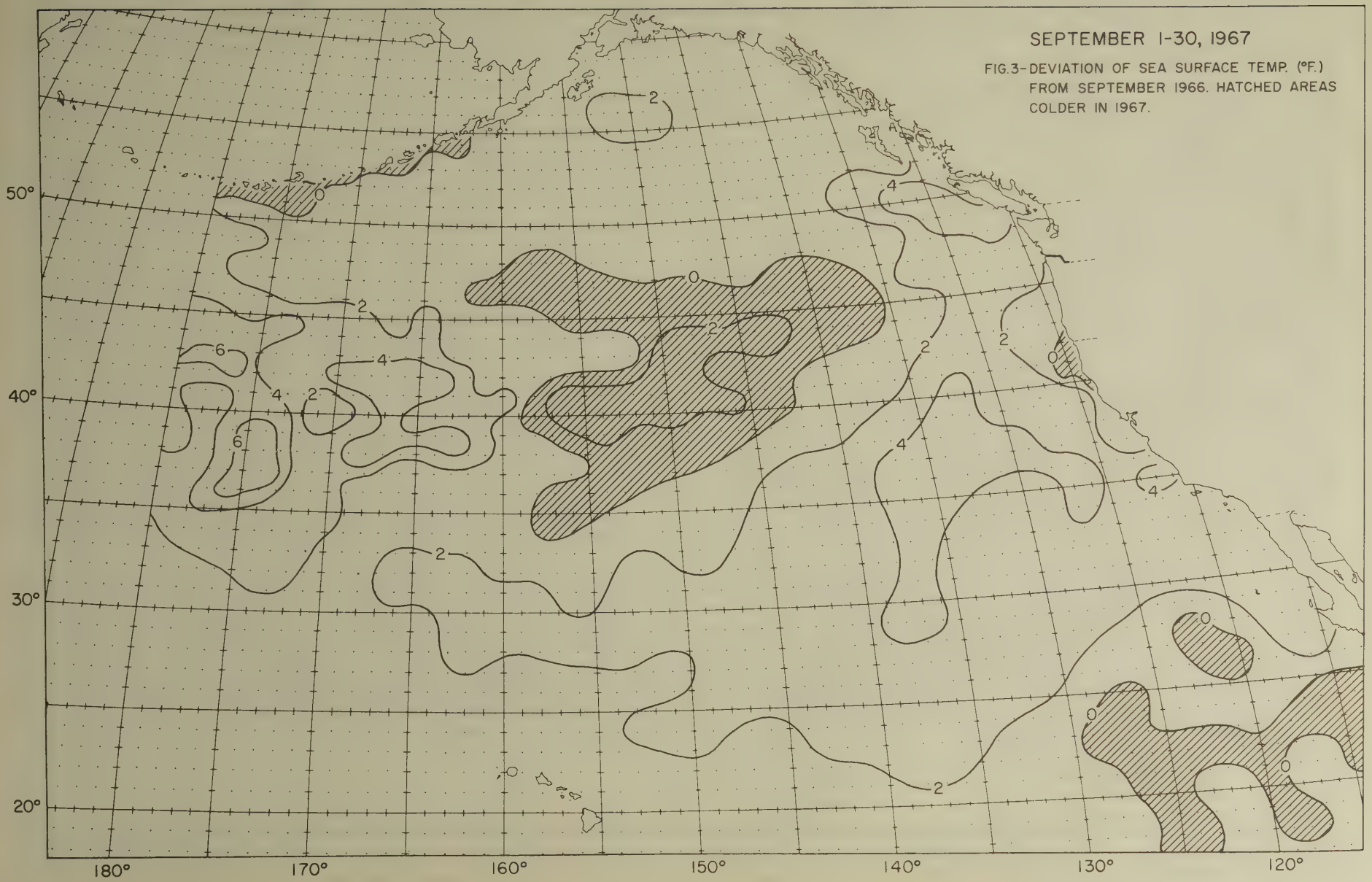
Figure 5.--Deviation of sea surface temperatures (°F) September 1967-September 1966 by 1-degree squares. Shaded areas are colder in 1967.

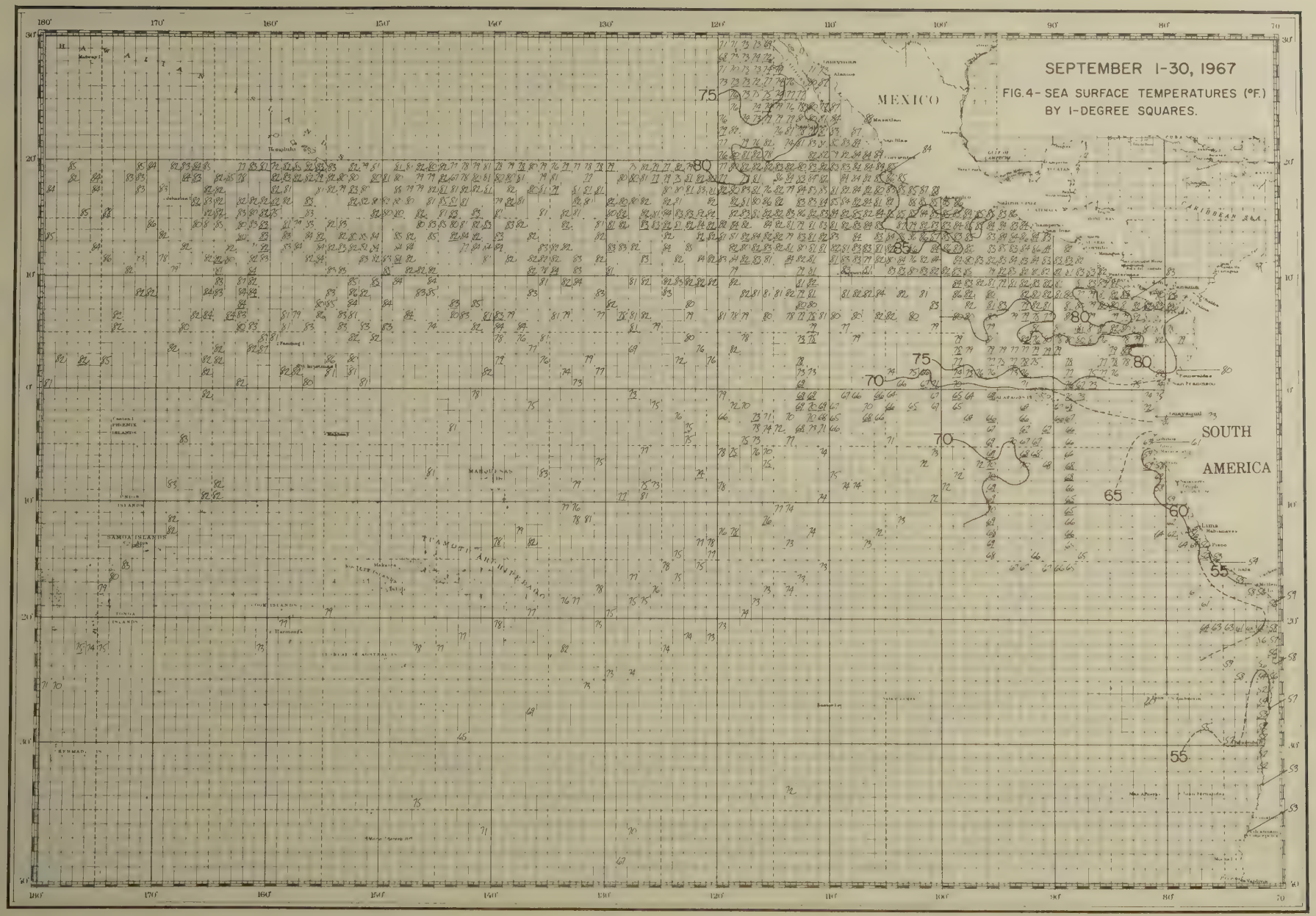
Figure 6.--Deviation of sea surface temperatures (°F) from 12-year mean (1947-1958) by 2-degree squares. Shaded areas are colder in 1967.

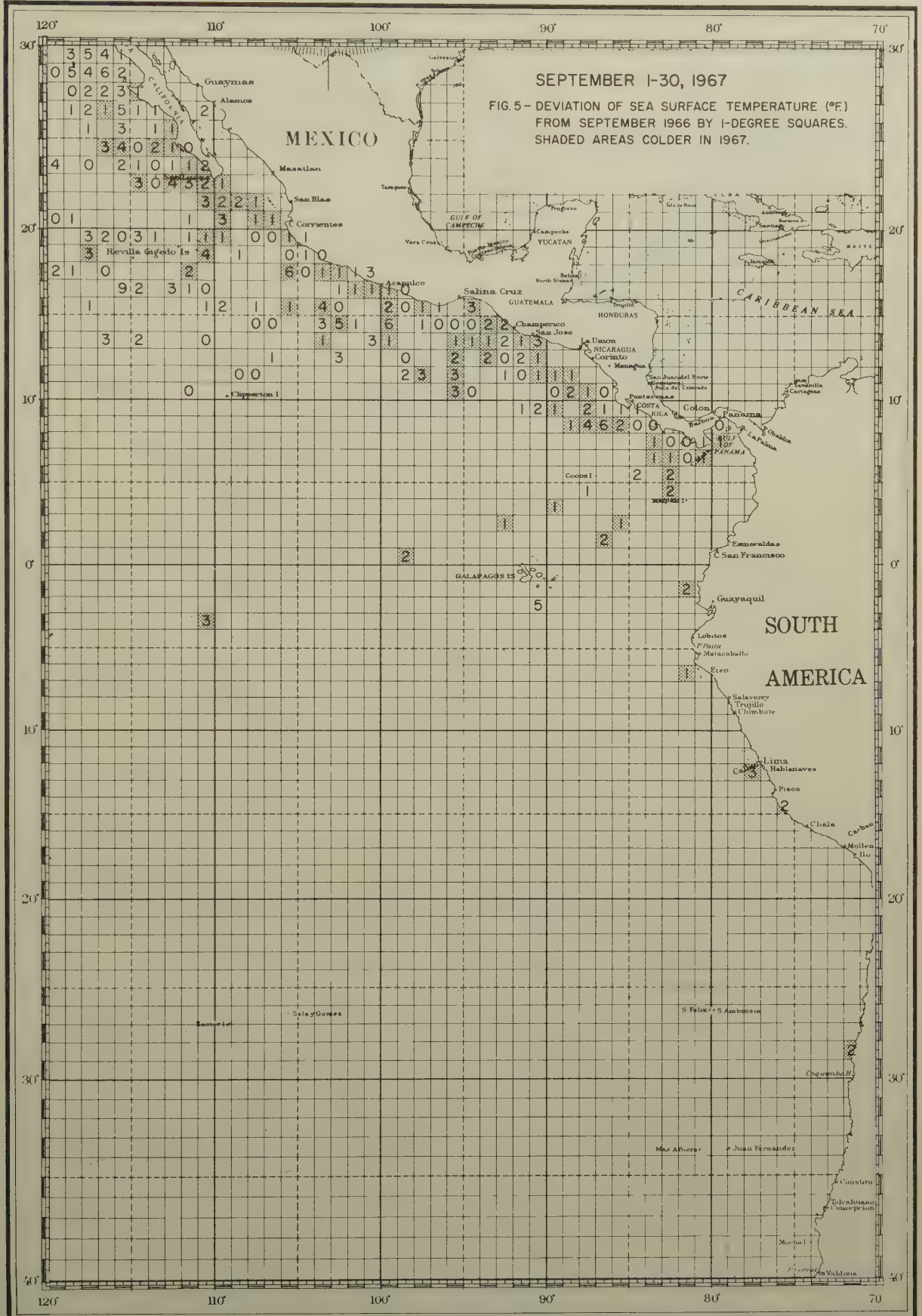
James A. Renner, Fishery Biologist (General)
Kenneth S. Raymond, Scientific Illustrator
October 10, 1967

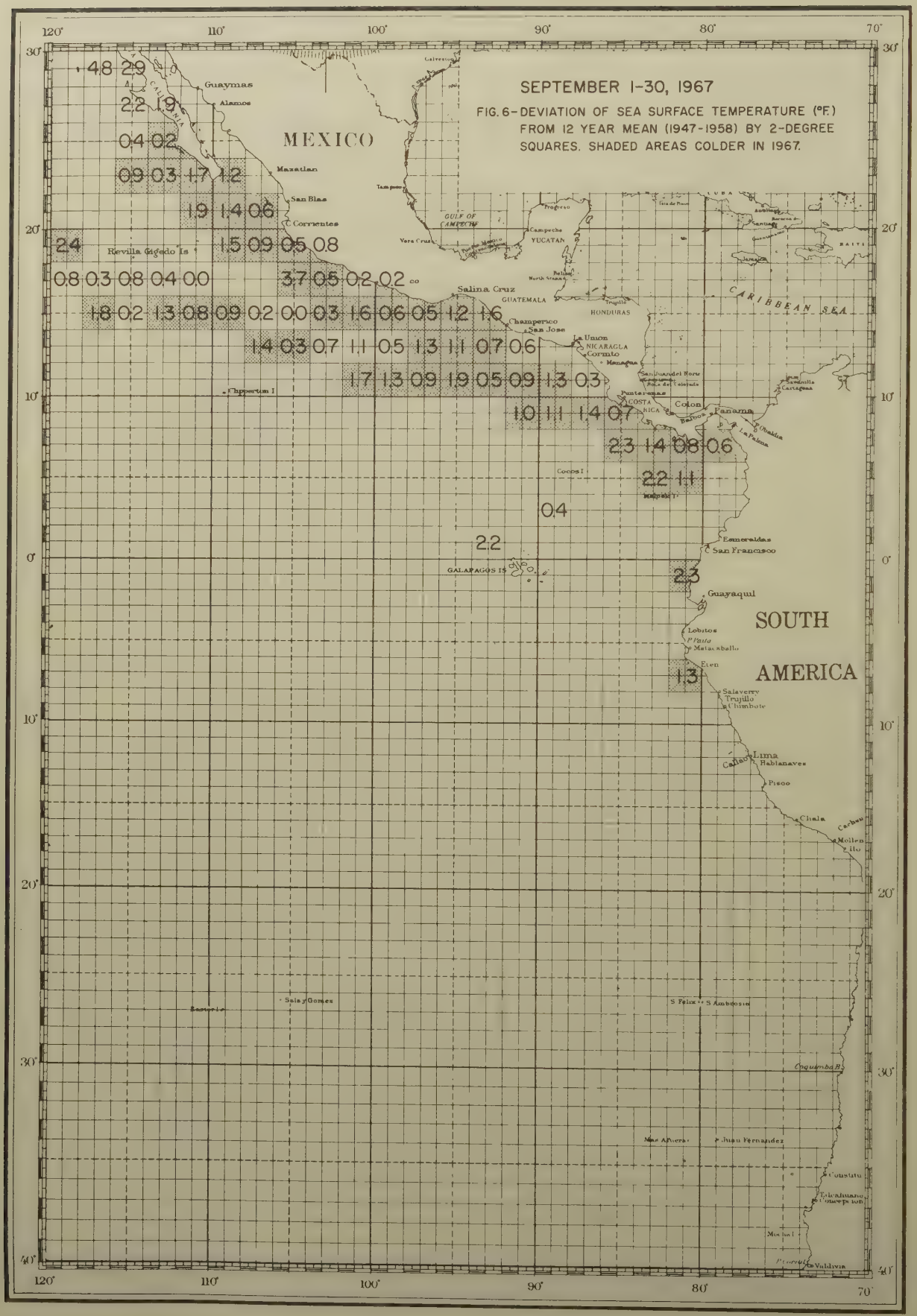

SEPTEMBER 1-30, 1967
FIG. 1- MEAN SEA SURFACE TEMPERATURE (°F.)
50°
40°
30°
20°
180°
170°
160°
150°
140°
130°
120°
55
76


SEPTEMBER 1-30, 1967
FIG. 2 - DEVIATION OF SEA SURFACE TEMP. (°F.) FROM LONG TERM MEAN. HATCHED AREAS COLDER IN 1967.
50°
40°
30°
20°
180°
170°
160°
150°
140°
130°
120°
0
2
4
6


SEPTEMBER 1-30, 1967
FIG.3-DEVIATION OF SEA SURFACE TEMP. (°F.) FROM SEPTEMBER 1966. HATCHED AREAS COLDER IN 1967.
50°
40°
30°
20°
180°
170°
160°
150°
140°
130°
120°


SEPTEMBER 1-30, 1967
FIG. 4 - SEA SURFACE TEMPERATURES (°F.)
BY 1-DEGREE SQUARES.
MEXICO
SOUTH
AMERICA
CARIBBEAN SEA
SAMOA ISLANDS
180°
170°
160°
150°
140°
130°
120°
110°
100°
90°
80°
70°
30°
20°
10°
0°
10°
20°
30°
40°
50°
60°


SEPTEMBER 1-30, 1967
FIG. 5 – DEVIATION OF SEA SURFACE TEMPERATURE (°F.) FROM SEPTEMBER 1966 BY 1-DEGREE SQUARES. SHADED AREAS COLDER IN 1967.
MEXICO
CARIBBEAN SEA
SOUTH AMERICA
GULF OF CAMPECHE
GULF OF PANAMA
GALAPAGOS IS
Guaymas
Alamos
Mazatlan
San Blas
Corrientes
Revilla Gigedo Is
Acapulco
Salina Cruz
GUATEMALA
HONDURAS
Champerco
San Jose
NICARAGUA
Managua
COSTA RICA
Panama
Colon
Coco I
Esmeraldas
San Francisco
Guayaquil
Lobitos
Talara
Eten
Salaverry
Trujillo
Chimbote
Lima
Callao
Pisco
Chala
Mollendo
Ilo
Salas y Gomez
S Felix
S Ambrosio
Juan Fernandez
Valdivia


SEPTEMBER 1-30, 1967
FIG. 6-DEVIATION OF SEA SURFACE TEMPERATURE (°F.) FROM 12 YEAR MEAN (1947-1958) BY 2-DEGREE SQUARES. SHADED AREAS COLDER IN 1967.
MEXICO
SOUTH AMERICA
CARIBBEAN SEA
GULF OF CAMPECHE
GALAPAGOS IS
Guaymas
Alamos
Mazatlan
San Blas
Corrientes
Salina Cruz
Champerico
San Jose
La Union
Corinto
Managua
Punta Arenas
Colon
Panama
Esmeraldas
San Francisco
Guayaquil
Lobitos
Talara
Eten
Salaverry
Trujillo
Chimbote
Callao
Lima
Pisco
Chala
Mollendo
Ilo
Arica
Iquique
Antofagasta
Coquimbo
Valparaiso
Talcahuano
Corral
Valdivia
Honduras
Guatemala
Nicaragua
Costa Rica
Haiti
Jamaica
Cuba
Yucatan
Campeche
Progreso
Veracruz
Tampico
Galveston
Trujillo
Puerto Cortes
Belize
Roatan
Cocos I
Malpelo I
Chipperton I
Revilla Gigedo Is
Socorro
Isla de Pinos
Cartagena
Barranquilla
Puerto Limon
Bocas del Toro
Porto Bello
Isla Palenque
Isla Taboga
Isla Perlas
Isla Coiba
Isla Montuosa
Isla Rey
Isla Pedro Gonzalez
Isla Del Rey
Isla Cebaco
Isla Canal de Afuera
Isla Juan Fernandez
Isla Mas Afuera
Isla Sala y Gomez
Isla San Felix
Isla San Ambrosio
Isla Mocha
Isla Santa Maria
Isla Quiriquina
Isla Metalqui
Isla Chiloe
Isla Guafo
Isla Guamblin
Isla Duque de York
Isla Wellington
Isla Madre de Dios
Isla Desolacion
Isla Clarence
Isla Navarino
Isla Hoste
Isla Gordon
Isla Lennox
Isla Picton
Isla Nueva
Isla Barnevelt
Isla Evout
Isla Deceit
Isla Freycinet
Isla Hanover
Isla Stokes
Isla Hudson
Isla Pitt
Isla Chatham
Isla Taylor
Isla Byron
Isla Wood
Isla Tres Montes
Isla Guarello
Isla Benjamin
Isla Duke
Isla Merino Jarpa
Isla Riesco
Isla Clements
Isla Dawson
Isla Santa Ines
Isla Desolacion
Isla Carlos III
Isla Pinto
Isla Gabriel
Isla Tamar
Isla Isabel
Isla Aguila
Isla Diego Ramirez
Isla Noir
Isla Evout
Isla Deceit
Isla Freycinet
Isla Hanover
Isla Stokes
Isla Hudson
Isla Pitt
Isla Chatham
Isla Taylor
Isla Byron
Isla Wood
Isla Tres Montes
Isla Guarello
Isla Benjamin
Isla Duke
Isla Merino Jarpa
Isla Riesco
Isla Clements
Isla Dawson
Isla Santa Ines
Isla Desolacion
Isla Carlos III
Isla Pinto
Isla Gabriel
Isla Tamar
Isla Isabel
Isla Aguila
Isla Diego Ramirez
Isla Noir
120°
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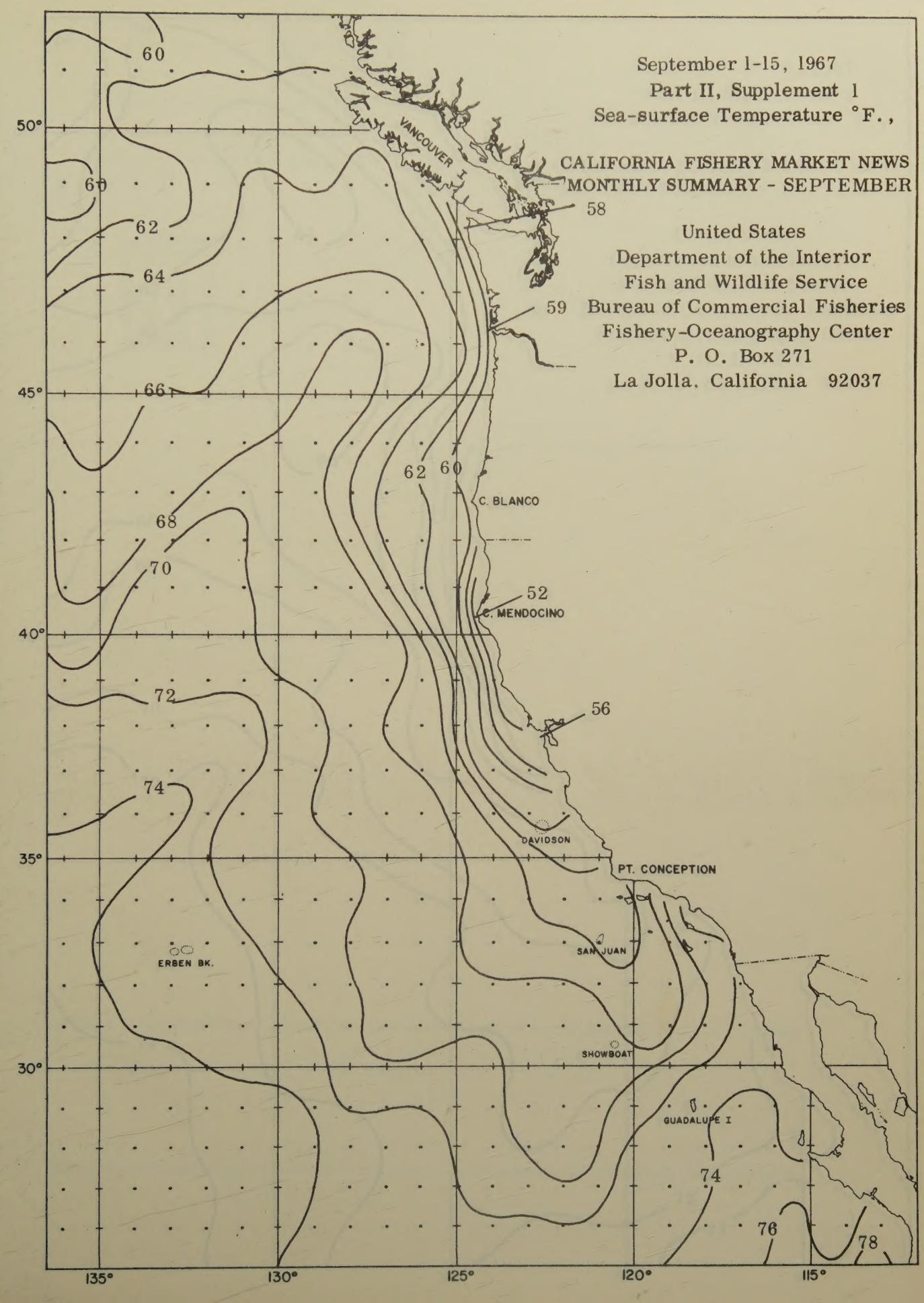
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Part II, Supplement 1
Sea-surface Temperature °F.,
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United States
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VANCOUVER I
C. BLANCO
C. MENDOCINO
DAVIDSON
PT. CONCEPTION
SAN JUAN
SHOWBOAT
GUADALUPE I
ERBEN BK.
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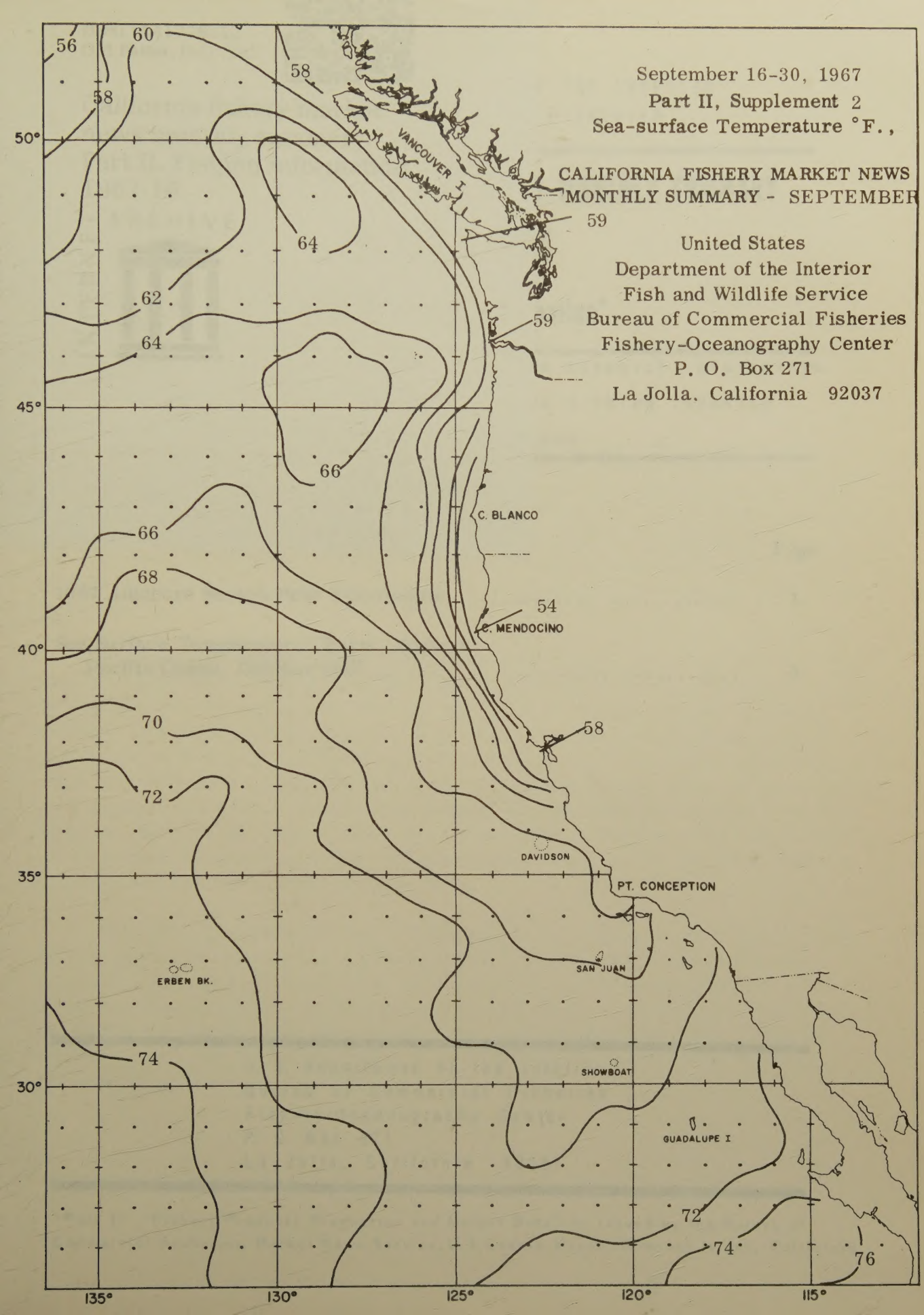
September 16-30, 1967
Part II, Supplement 2
Sea-surface Temperature °F.,
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Department of the Interior
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VANCOUVER I
C. BLANCO
C. MENDOCINO
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ERBEN BK.
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